IN THE SPECIFICATION:

Please replace the first full paragraph on Page 5, under detailed description of the invention: with the following paragraph:

The detailed description will be given with reference to the attached Figure 1. A.F.T. reactor (1) processes a charge (C) constituted by a mixture of CO and H_2 called synthesis gas and produces a collection of hydrocarbons with a carbon atom count ranging from 1 to about 80, designated (P). As the reactions involved are strongly exothermic, the reactor is cooled by an exchange bundle (2) constituted by a tube assembly immersed within the fluidized reaction medium. The design of the exchange bundle is not a characteristic of the present invention which is compatible with any type of exchange bundle. This exchange bundle will be characterized by a certain exchange surface density which will generally be in the range of 10 to 30 m^2/m^3 of reaction volume and preferably in the range 15 to 25 m^2/m^3 of reaction volume. A catalyst reduced to the state of fine particles of an average diameter of about 50 microns is suspended within the liquid phase constituted by the products of the reaction, and the liquid/solid suspension is itself crossed by the gas phase present in the medium in the form of bubbles. A coolant, for example methanol, is introduced in liquid state into the lower part of the tube bundle (2) from a pump (14) via a line (3) in a state close to its bubble point, and at a pressure slightly greater than the pressure prevailing in the reaction medium. Generally, this positive pressure difference between the inside of the tubes and the reaction medium will be between 0.5 and 5 bar and preferably between 1 and 4 bar. The coolant is heated until it reaches its boiling point at the considered pressure and is partially vaporized inside the immersed tube bundle (2). The resultant liquid/vapour mixture leaves the tube bundle (2) via its upper part by means of a line (4), at a temperature about 20 to 30° below the temperature of the reaction medium and is introduced into a separating flask (5) external to the reaction medium, from which a vapour phase is extracted through a line (6) and a liquid phase through a line (7). The vapour phase (6) is introduced into an exchanger (8) which will allow its condensation in liquid evacuated through a line (10) and

the line (7) of the resultant liquid phase, that has come from the separating flask (5), also joins this liquid-phase line (10). The liquid phase of the line (10) is taken up by the pump (14) which will pass the coolant through the line (3) into the tube bundle (2) of the reactor (1). The pump (14) which will pass the coolant through the line (3) into the tube bundle (2) of the reactor (1). The pump (14) ~~allows~~ compensates for the pressure drop due to the ~~crossing~~ traversal of the tube bundle (2) ~~to be overcome~~ and imparts a sufficient speed ~~to be imparted~~ to the coolant so as ~~to benefit from high~~ to increase tube-side heat-exchange coefficients ~~tube-side.~~ The addition of methanol, or more generally of coolant, is realized by a line (11) which discharges into the liquid phase of the separating flask (5). Generally, the exchanger (8) will be an exchanger with a tube bundle and calander, the coolant to be condensed circulating inside the tubes, and the cooling fluid allowing this condensation being situated calander-side. The calander-side cooling fluid will generally be liquid water which will use the heat of condensation of the coolant to change into a water/vapour mixture. The water/vapour circuit can be of the gas siphon type, that is to say employing a separating flask (13) placed high enough relative to the exchanger (8) for the circulation of the water/vapour mixture between the exchanger (8) and the flask (13) through a line (15) to take place solely through gravity, and the circulation of the liquid water originating in the flask (13) to the exchanger (8) through a line (16). The saturated vapour leaves the flask (13) through a line (9) at a temperature about 10°C below that of the coolant. The liquid water is added through a line (12) which enters the lower part of the flask (13).